Against the Grain

Volume 20 | Issue 5 Article 39

November 2008

Standards Column -- The Future of End User Services

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Standards Column — The Future of End User Services

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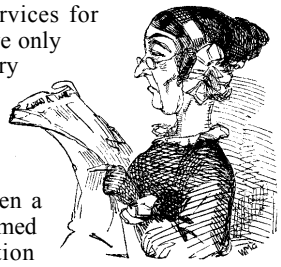
Over the last decade, libraries have spent a large amount of time focusing on how to better integrate digital resources into their services. We have accomplished a great deal in working together to find ways to manage those resources — from providing access through search tools, authentication, and licensing to discovering ways to archive and ensure the longevity of our digital collections.

However, libraries remain repositories of great quantities of *physical* materials and their organization, maintenance, and preservation are among most institution's top priorities. **NISO** has a long history of participating in the standards development arena regarding physical objects including specifications on steel shelving to paper permanence and library binding. But the delivery of physical materials to end users has often taken a back seat. While people clamor for on-demand instant access to content, there are still literally billions of physical items that are circulated by libraries every year. Even as we have invested tremendous amounts of time and effort in digitization and search technologies, the management of the physical delivery of those items has been left to languish.

As we enter a period where belt-tightening will become a common theme, sharing resources — either physical or digital — will rise in importance in most institution's collection management and service goals. Understanding how these collaborations are taking place and developing will be critical for libraries to remain relevant to their end users and for publishers to understand how their business models need to adjust in the face of these new realities.

The field of logistics is one area that has made great strides. Many can scarcely remember when we couldn't trust that **FedEx** would get it to us, "when it absolutely, positively has to get there overnight." While overnight delivery had primarily been the domain of legal firms, large corporations, and other big business, it has now become nearly ubiquitous. People take it for granted that for another $5, $10, or $15 they can have whatever they order arrive at their doorsteps within 24 hours. In fact, customers are often irritated when that isn't an option and, if necessary, will search out another supplier who can deliver it quickly. I know I have. We now live in a world where on-demand service has become the norm. However, when using library services for physical materials, users often have only one option: get up and go to the library to personally collect the item. And, unfortunately, patrons are getting turned off by that albeit small barrier.



Logistics and delivery has been a field that has been radically transformed by both application of information technology and standards. Intricate systems of scanning, tracking, tagging, and identifying packages, as well as mapping driver routes, delivery, and flight times, make a mind-numbingly complicated system fairly easy to understand and track. Who hasn't tracked their own packages using **UPS**, **FedEx**, or the **US Postal Service** Websites? Large distributors, wholesalers, and retailers are beginning to apply RFID technology to items to even more minutely control and track inventory. I am certain that even more technology and standards are at work than we (looking in from the outside) realize.

While some libraries are beginning to implement similar systems, a great deal of work remains. Earlier this year, **NISO** released a best practice document on the use of RFID tags in U.S. libraries to track physical items. We are also working with the international community on a standard for RFID tags in libraries, which is moving toward publication, probably next year. Further, **NISO's Institutional Identifiers (I^2) Working Group** is developing a standard to help identify institutions and their multiplicity of libraries, departments, campuses, or offices throughout the supply chain.

Equally important are the back-end systems that manage the items. ILS systems are constantly being pushed and their functionality expanded to accomplish the inventory management that libraries need to undertake. How these systems communicate with each other has long been an issue, and standards have helped to provide common mechanisms for communicating the needs of one department or institution to another. Several standards exist to describe the request and response exchange among institutions when someone submits a request for an item. Among the most widely used are the **ISO Interlibrary Loan** standards (ISO 10160 & ISO 10161), the **3M Standard Interchange Protocol (SIP)**, and the **NISO Circulation Interchange Protocol (NCIP) — ANSI/NISO Z39.83**, which was recently revised and balloted. Each of these specifications allows library systems to exchange messages about what is held, what is available, what is out on loan, and a myriad of other important questions one might want to know about what is being held at an institution.

Despite these standards, the flow of requests from one system to another often gets clogged because institutions are using different standards, or perhaps because they have applied the same standard in slightly different ways. Anyone who has had to change airlines on a trip knows how difficult it is to switch from one airline to another and try to step into their systems. Usually, all of the fancy electronic passenger information systems collapse and you end up with a handful of paperwork as you head to the other airline's customer service desk. Just like at the airport, library patrons don't want to be bothered with how the back-end systems work; they would just like to receive the item they want. Unfortunately, in too many libraries, the systems in place can act more like barriers to service than facilitators.

There are some ongoing projects that are working to push the boundaries of library service and to improve the situation. The **Rethinking Resource Sharing Initiative** is a group looking to transform end user services by improving policies, workflow, and systems to provide a delivery service equivalent to the best Internet booksellers. Their manifesto includes many principles worth consideration in the broader community: reducing barriers to fulfilling end users' needs, sharing among a variety of institution types, providing options to the end user such as format and type of delivery, engaging patrons more easily, and fair pricing of services. The group has made several concrete steps toward achieving these goals. One project the initiative is advancing is an open-source, vendor-neutral plug-in, **GoGetter**, that lets people search the Web to get published items from a variety of sources, including libraries and booksellers. As described on their Website: "When the plug-in is used through a browser, a list of sources appears showing the source, format, title, author, terms of use, and any cost. The user will simply click on the item they want and, depending on their choice, will then be able to order the item, place a hold, make an ILL request, or view the item online." The key goal is to incorporate the library along with the other potential delivery methods that an end user might choose when searching the Web.

OCLC is another organization that has been at the forefront of developing and providing innovative end user solutions, particularly in the areas of discovery, via **WorldCat** and **WorldCat Local**. These discovery interfaces provide integrated search and location information to users indicating which library holds a particular item within a specific geographic area, among other information. Another area where **OCLC** has been innovative is in **WorldCat Resource Sharing**. This is a user self-service model, which builds off the collaborative data sharing in **WorldCat** to fulfill ILL requests. The service provides request filtering and automated fulfillment to provide materials to patrons.

In the area of physical delivery, the **Colorado Library Consortium** has had tremendous success with their **Moving Mountains Project** and their efforts to improve the understanding and visibility of physical delivery as a service. The project began with a symposium in September 2006 focused on physical delivery and

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I Hear the Train A Comin' — Center for Science Diplomacy

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The world is shrinking. This is a truism one often hears applied to the world of scholarly communication. But what institutions are arising to capitalize on and accelerate that constriction? One new body is the **Center for Science Diplomacy**, an arm of the **American Association for the Advancement of Science**. I recently spoke with its Director, **Vaughan Turekian**, about how science can build bridges across nations and ideologies, and what role academia can play in that process.

What is the Center for Science Diplomacy's mission?

The **Center for Science Diplomacy** aims to raise the profile of international science cooperation as a method for building relationships between and among countries and societies. A key element of this is bringing together scientists, the foreign policy and public policy communities to discuss what types of activities might help build bridges.

How did the Center come into being?

The **Center** is the product of numerous interactions that the **American Association for the Advancement of Science** has had with leading thinkers and practitioners from across the science and policy communities. Congressman **Brian Baird** (D-WA) has used a series of hearings to focus on the potential role that science cooperation might have in US foreign policy. During a civil society panel in July 2008, **AAAS** CEO **Dr. Alan Leshner** officially launched the new **Center** to serve as nexus of the science and policy communities on these issues.

What is "science diplomacy," and what are some concrete examples?

Science diplomacy is the application of international science cooperation for the purpose of enhancing civil society and official international relations. It does so through actions that are designed to build technical capacity, advance science, and meet shared societal challenges such as climate change and public health. According to this definition, science diplomacy applies when the relationship is the goal, and science is the method (which differs from broader international scientific cooperation where advancing science is the goal and cooperation is the method). The use of science as an important element in a broader diplomatic relationship is not new; rather, it came to the fore during the cold war, when science engagement was used to build relationships with key members of other nation's intellectual leadership. In the early 1960's, for example, science cooperation became a critical element to engage Japan's elites at a time when the U.S. — Japan relationship faced some strains and growing pains. During their first meeting in 1961, Japanese **Prime Minister Ikeda** and U.S. **President Kennedy** committed to science cooperation between the two countries. The joint collaboration was meant to address the growing concern — outlined by **Edwin Reischauer** in his *Foreign Affairs* article, "The Broken Dialogue with Japan" — that the intellectual communities in both countries were drifting apart. Later in the cold war, science cooperation became a central element in establishing links and enhancing ties between important elements of U.S. and Soviet Society — particularly important given the dearth of other interactions, both official and unofficial. During his 1987 testimony to the **House Subcommittee on International Scientific Cooperation**, then-Assistant Secretary of State for **Oceans International Environment and Scientific Affairs John Negroponte** underscored the key reason for U.S.-Soviet scientific cooperation, stating "...we cannot forget that we are dealing with a closed society, and that these exchanges often give us the only access to significant circles in that society with whom we would otherwise have little or no contact. It would be short-sighted of us not to recognize that it is in our national interest to seek to expand scientific cooperation with the Soviet Union."

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there is an effort to build a national network of courier services for libraries to exchange materials.

There are also a number of institutions that are exploring direct-to-home delivery of items. Much like **Netflix**, some libraries are fulfilling requests and delivering the object to the user's mailbox. Certainly, there are costs associated with these services, but if people need or want to take advantage of them, why not provide the option? Much like other services, if the customers (in this case, library patrons) aren't being served in the way they want to be served, libraries face the risk that they will seek out another supplier.

In the end, the key goal of both publishers and libraries is getting the content to the readers and researchers who want it. We need to ensure they can find that content and we need to remove the barriers that exist in getting it. The barriers to discovery are rapidly diminishing. The barriers to delivering that content remain and desperately need to be overcome.